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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,295

11/14/2003

Hieyoung W. Oh

14104

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7590

02/09/2006

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EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/714,295	<b>Applicant(s)</b> OH ET AL.	
	<b>Examiner</b> Dharti H. Patel	<b>Art Unit</b> 2836	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-7, 11, 14, 15, 20, 21 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10, 12, 13, 16-19, 22 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/12/06, 3/18/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

DETAILED ACTION

***Claim Objections***

1. Claim 1 is objected to as indefinite as it is unclear how the "apparatus is disposed with respect to said component" as the component is part of the apparatus. Furthermore there is not antecedent basis for "said component".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9-10, 12-13, 16-19, 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Fox et al., Patent No. 5,010,441. With respect to claim 1, Fox et al. teaches a moving component, shaft 75, upon which static electrical charges build during operation; a static charge neutralizing assembly 73 associated with said moving component 75, said neutralizing assembly 73 including a conductive carrier strip; and a plurality of electrically conductive filaments 108 attached to said carrier strip, said filaments 108 having diameters sufficiently small to induce ionization in the presence of an electrical field generated by static charges on said moving component 75, said filaments 108 disposed on said carrier strip and extending beyond an edge of said carrier strip and having distal ends remote from said carrier strip; a component that holds the

8.

filaments with the distal tips adjacent but in spaced relation to the moving component so as to not contact the moving component, to thereby cause ionization between the filaments and the moving component as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

With respect to claim 2, Fox et al. teach the moving component being a roll.

With respect to claim 3, Fox et al. teach distal tips disposed in spaced relation to an outer surface of said roll as disclosed in Fig. 2 and Fig. 3.

With respect to claims 9 and 10, Fox et al. teach that the moving component 75 being a motor shaft as disclosed in Col. 6, lines 14-16 and Fig. 2.

With respect to claim 12, Fox et al. teaches a carrier strip that is annular in shape and surrounding said shaft 75, and said filaments 108 extending inwardly beyond an inner edge of said annular carrier strip as disclosed in Fig. 2 and Fig. 3.

With respect to claims 13 and 16, Fox et al. teach that the filaments 108 are arranged in bundles as disclosed in Col. 6, lines 23-25 and Fig. 3.

With respect to claim 17, Fox et al. teach an electric motor 112 comprising a motor shaft 75 rotated during operation of the motor and accumulating static charges thereon during said operation; a static charge neutralizing assembly 73 associated with said shaft, said neutralizing assembly including a conductive carrier strip; a plurality of electrically conductive filaments 108 electrically connected to said conductive carrier strip, said filaments 108 being sufficiently

small to induce ionization in the presence of an electrical field from static charges on said shaft, said filaments projecting beyond an edge of said carrier strip and having distal tips disposed adjacent but in spaced relation to said shaft so as to not contact said shaft as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

With respect to claim 18, Fox et al. teach a carrier strip that is annular shaped and surrounding said shaft 75 as disclosed in Fig. 2.

With respect to claim 19, Fox et al. teaches that the filaments 108 are arranged in bundles projecting inwardly from said annular shaped carrier strip as disclosed in Fig. 2.

With respect to claim 22, Fox et al. teaches that the filaments 108 are arranged in bundles projecting inwardly from said carrier strip as disclosed in Fig. 2 and Fig. 3.

With respect to claim 24, Fox et al. teach a method for neutralizing static charge on a moving component, motor shaft 75, of an apparatus, said method comprising steps of: providing an arrangement of filaments 108 having diameters sufficiently small to induce ionization in the presence of an electrical field created by static charges on the component; positioning distal ends of the filaments 108 near but spaced from a surface of the component 75 so as to not contact the component; operating the apparatus including moving the surface of the component 75 past the distal tips of the filaments 108 adjacent thereto; and inducing ionization from the static electric charge on the surface of the

component along the filament distal tips as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

3. This rejection of claim 1 is different and separate from the above rejection. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fox et al., Patent No., 5,010,441. With respect to claim 1, Fox et al. teaches a moving component, plate 77, upon which static electrical charges build during operation; a static charge neutralizing assembly 73 associated with said moving component 77, said neutralizing assembly 73 including a conductive carrier strip; and a plurality of electrically conductive filaments 108 attached to said carrier strip, said filaments 108 having diameters sufficiently small to induce ionization in the presence of an electrical field generated by static charges on said moving component 77, said filaments 108 disposed on said carrier strip and extending beyond an edge of said carrier strip and having distal ends remote from said carrier strip; and a component that holds filaments with distal tips adjacent but in spaced relation to the moving component, to thereby cause ionization between the filaments and the moving component as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is rejected based on the second rejection of claim 1 mentioned above in "3". With respect to claim 8, Fox et al. teach a plate 77 as a moving component which is a conveyor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to put the slats on a belt of a conveyor for more uniform movement of the belt.

***Allowable Subject Matter***

5. Claims 4-7, 11, 14-15, 20-21 and 23 are allowed. The following is an examiner's statement of reasons for indicating allowance of claim 4: Fox et al. teach a moving component being a roll but does not disclose a roll having a shaft extending therethrough, and said apparatus having a mounting fixture attached to said shaft. This is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 11: Fox et al. teach a carrier strip including first 110 and second 114 outer layers on opposite sides, but does not disclose each outer layer having a shoulder adjacent said carrier strip and having a portion thereof projecting beyond said edge of said carrier strip adjacent but spaced from said distal tips of said filaments. This is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 14: Fox et al. teaches a carrier strip including first 110 and

second 114 outer layers on opposite sides, but does not disclose each outer layer having a shoulder adjacent said carrier strip and having a portion thereof projecting inwardly adjacent but spaced from said distal tips of said filaments. This is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 20 and 23: Fox et al. teaches a carrier strip including first 110 and second 114 outer layers on opposite sides, but does not disclose each outer layer having a shoulder adjacent said carrier strip and having a portion thereof projecting inwardly beyond said edge of said carrier strip adjacent but spaced from said distal tips of said filaments. This is not anticipated or rendered obvious by the prior art of record.

#### ***Response to Arguments***

6. Applicant's arguments filed on 01/12/2006 have been fully considered but they are not persuasive. Concerning in the arguments in claim 1 "so as to not contact said moving component", Fox et al. teach that as brush 73 rotates with shaft 75, fibers 108 periodically contact guide plate 77 as disclosed in Col. 6, lines 18-19. The periodic non-contacting portion of operation encompasses applicant's "so as to not contact said moving component."

#### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**



See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 8:30am - 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DHP  
02/02/2006

A handwritten signature in black ink, appearing to read 'Phuong T. Vu', with a stylized, cursive script.

**PHUONG T. VU**  
**PRIMARY EXAMINER**